REMARKS

In the Office Action mailed July 18, 2006, claims 7, 8, 15, 16, 20 and 24-27 were withdrawn from consideration. Claims 1-3, 9-13 and 17-22 were rejected, and claims 4-6, 14 and 23 were objected to. Claims 7, 8, 15, 16, 20 and 24-27 were withdrawn from consideration as being drawn to a nonelected species. Claims 3, 11-13 and 17-22 were rejected under 35 U.S.C. §112, ¶2 as being indefinite. Claims 1, 2 and 9 were rejected under 35 U.S.C. §102(b) as being anticipated by Jurisch et al. (U.S. Pat. No. 4,972,286). Claims 1, 2, 9 and 10 were rejected as being anticipated by Okumura et al. (U.S. Pat. No. 6,160,688). Claim 3 was rejected under 35 U.S.C. §103(a) as being obvious over Jurisch et al. Claims 4-6, 14 and 23 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form. Claims 11-13 and 17-22 were indicated to be allowable if rewritten or amended to overcome the rejections under §112, ¶2.

With the present Amendment claim 3 has been canceled, but Applicants wish to preserve the right to represent that claim in any continuation or divisional applications.

Withdrawn dependent claims 15, 16 and 20 have hereby been amended to clarify that they are directed to the same species as amended independent claims 11 and 17, from which claims 15, 16 and 20 variously depend.

Claim Rejections - 35 U.S.C. §112, ¶2

Claims 3, 11-13 and 17-22 were rejected under 35 U.S.C. §112, ¶2 as being indefinite. Concerning claims 3, 13 and 22, the Office Action states that those claims "fail to recite the structural feature that provides the listed electrical isolation of the reader and writer." Concerning claims 11 and 17, the Office Action states that those claims "fail to recite the structural feature that acts with the resistor to provide the grounding."

With the present Amendment, claims 13 and 22 have each been amended to recite an electrically insulating material that electrically isolates the reader and writer. Thus, with the present

amendment, claims 13 and 22 are definite, and the rejections of those claims under §112, ¶2 should be withdrawn. Notification to that effect is requested.

Furthermore, all of the limitations of original claim 3 (now canceled) along with a recitation of an electrically insulating material that electrically isolates the reader and writer have been added to amended independent claim 1. Thus, the rejection of claim 3 under §112, ¶2 is now moot, and the issue resolved with respect to amended independent claim 1. Notification to that effect is requested.

In addition, with the present Amendment, independent claims 11 and 17 have been amended to explicitly require an electrical ground. With those new limitations, claims 11 and 17 are now definite by distinctly pointing out the structural features that act with the resistors to provide grounding. Likewise, claims 12, 13 and 18-22, which depend from amended independent claim 11 and 17, are also now definite. As such, all of the rejections under §112, ¶2 should be withdrawn. Notification to that effect is requested.

Claim Rejections - 35 U.S.C. §102(b)

Claims 1, 2 and 9 were rejected under 35 U.S.C. §102(b) as being anticipated by Jurisch et al. (U.S. Pat. No. 4,972,286).

Amended independent claim 1 relates to a transducing head that requires a substrate, a writer having a writer core, a reader, an electrically insulating material, and an electrical connector for grounding the writer to the substrate. According to amended independent claim 1, the reader and the writer core must be electrically isolated from one another by the electrically insulating material.

Jurisch et al. discloses grounding pole structures in thin film magnetic heads. In particular, Jurisch et al. discloses forming a thin film magnetic head (10) that performs both reading and writing functions. (Jurisch et al., col. 3, ll. 12-15; FIG. 1). The head (10) is formed upon an electrically conductive substrate (12), but is separated from the substrate (12) by an electrically insulative base coat (36). (Jurisch et al., col. 2, ll. 30-52; col. 4, ll. 1-2; FIG. 1). The head (10) includes a core (14) that is defined by front upper and lower portions (16 and 18) and rear upper and lower portions (26 and 28), with the front and

rear portions (16,18 and 26,28) meeting at a via portion (30). (Jurisch et al., col. 2, ll. 35-43; FIG. 1). Two sets of core windings (32 and 34) are located within the core (14). (Jurisch et al., col. 2, ll. 44-59; FIG. 1). An electrically conductive stud (40) is formed between the via portion (30) of the core (14) and the substrate (12) through the base coat (36) in order to short stray capacitance. (Jurisch et al., col. 2, ll. 60-65; col. 3, ll. 53-58; col. 5, ll. 3-15; FIG. 1).

Jurisch et al. does not show, teach or disclose each and every element of amended independent claim 1. As noted above, the limitations of original dependent claim 3 have been incorporated into amended independent claim 1, which now requires the use of a reader and a writer core. On page 4 of the Office Action it is recognized that Jurisch et al. does not disclose a head having separate reader and writer structures. Thus, Jurisch et al. lacks a necessary limitation of amended independent claim 1. Furthermore, amended independent claim 1 requires that the reader and the writer core be electrically isolated from one another by the electrically insulating material, and that the electrical connector electrically connects the writer core to the substrate. In that respect, Jurisch et al. fails to show, teach, disclose or suggest a transducing head having electrically isolated reader and writer structures where the writer is grounded to a substrate as required by amended independent claim 1. Thus, the rejection of amended independent claim 1 under §102(b) should be withdrawn. Notification to that effect is requested.

Claims 2 and 9 depend from amended independent claim 1, and include all of the limitations of that base claim. Therefore, dependent claim 2 and 9 are likewise allowable over the cited art for the reasons stated above. The rejections of dependent claims 2 and 9 under §102(b) should accordingly be withdrawn. Notification to that effect is requested.

Original dependent claim 3, which has now been incoporated into amended independent claim 1, was rejected under §103(a) as being obvious over Jurisch et al. in view of Official Notice taken in the Office Action "that utilizing separate read and write heads in place of a single [read/write] R/W head is old and well known." (7/18/2006 Office Action, p. 4). Applicants recognize that separate read and write heads are known in the art. (See, e.g., Okumura et al., U.S. Pat. No. 6,160,688, discussed below).

However, it is respectfully submitted that Jurisch et al. and the subject matter for which Official Notice was taken are insufficient to render amended independent claim 1 obvious under §103(a).

In order to establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. *In re Kotzab*, 217 F.3d 1365 (Fed. Cir. 2000); MPEP 2143.01 and 2143.03. Rejections under 35 U.S.C. §103 must also rest on a factual basis, and an examiner may not rely upon speculation, unsubstantiated assumptions or hindsight reconstruction to supply deficiencies in the factual basis. *In re Warner*, 37 F.2d 1011, 1017 (CCPA 1967), *cert denied*, 389 U.S. 1057 (1968); see also *In re Mills*, 916 F.2d 680, 682 (Fed. Cir. 1990) (although a device may be capable of modification, there must be a suggestion or motivation in the reference to do so). Moreover, if the proposed modification of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the cited references are not sufficient to render a claim *prima facie* obvious. *In re Ratti*, 270 F.2d 810 (CCPA 1959).

Here, Official Notice was taken that separate read and write heads were known in the art, but that fact alone does not provide sufficient motivation to modify Jurisch et al. to arrive at a transducing head configured specifically as recited in amended independent claim 1. Amended independent claim 1 requires electrically isolated reader and writer structures where the writer is grounded to a substrate. Jurisch et al. discloses grounding for a unitary R/W head, but does not explicitly provide a motivation to utilize separate readers and writers with grounding of the writer. Jurisch et al. does not specify what components would be grounded if the reader and writer were separate. Because Jursich et al. only discloses grounding a combined R/W head, it cannot be assumed that Jurisch et al. suggests grounding the writer at all if the reader and writer were separated. Jurisch et al. is silent on that point, and provides no motivation for the application of a grounding feature to a transducing head with separate reader and writer structures. Moreover, while separate reader and writer heads were generally known in the art, the type of grounding provided as in amended independent claim 1 was not known. The fact for which Official

Notice was taken does not specifically disclose *electrically isolated* reader and write heads having a grounded writer. For example, Okumura et al. is a prior art reference of record that discloses separate read and write heads, but teaches away from a transducing head according to amended independent claim 1 by requiring that the read and write structures be electrically linked through a shared pole. (Okumura et al., col. 5, ll. 16-20).

In short, the prior art of record fails to disclose or suggest each and every limitation of a transducing head according to independent claim 1. Thus, the rejection under §103(a) as applied to original dependent claim 3 (the limitations of which are now incorporated into amended independent claim 1) should be withdrawn. Notification to that effect is requested.

Claims 1, 2, 9 and 10 were rejected as being anticipated by Okumura et al. (U.S. Pat. No. 6,160,688). Amended independent claim 1 is discussed above.

Okumura et al. discloses a magnetoresistive (MR) composite head having grounded magnetic shielding layers. The head (11) of Okumura et al. is supported on an electrically conductive slider (12), and the slider (12) is in turn supported by an electrically conductive suspension (25). (Okumura et al., col. 4, ll. 60-65; col. 5, ll. 45-50; col. 6, ll. 39-41; FIG. 1; see also FIGS. 3 and 4). Okumura et al. discloses a reader that includes a MR layer (20) located between first and second magnetic shield layers (14 and 17). (Okumura et al., col. 5, ll. 4-11; FIG. 1; see also FIGS. 3 and 4). Okumura et al. further discloses a writer (or recording head) formed by the second magnetic shield layer (17), a magnetic pole layer (18), and a write coil (22) located between those layers (17 and 18). (Okumura et al. col. 5, ll. 12-26; FIG. 1; see also FIGS. 3 and 4). The reader and writer of Okumura et al. are electromagnetically connected to each other by a shared pole—the second shield (17). (Okumura et al., col. 5, ll. 16-20; FIG. 1; see also FIGS. 3 and 4). In one embodiment, a tile conductive member (24) electrically connects the first and second magnetic shield layers (14 and 17), the magnetic pole (18) and the slider or substrate (12). (Okumura et al., col. 5, ll. 27-44; FIG. 1). In other disclosed embodiments, a conductive resin (26) grounds the first and second magnetic shield layers (14 and 17) and the magnetic pole (18) to the

suspension (25), or the first and second magnetic shield layers (14 and 17) and the magnetic pole (18) are directly grounded to the suspension (25). (Okumura et al., col. 7, ll. 1-15 and 35-54; FIGS. 3 and 4).

However, Okumura et al. does not show, teach or disclose each and every element of amended independent claim 1, because Okumura et al. does not show, teach or disclose a transducing head having electrically isolated reader and writer structures as required by amended independent claim 1. Rather, Okumura et al. discloses electrically linking the writer and the reader though a shared pole (i.e., the second magnetic shield (17)). (Okumura et al., col. 5, ll. 16-20). Electrically linked, shared-pole designs are distinguishable from transducing head designs with electrically isolated readers and writers. (See p. 4, ll. 13-24). For that reason, Okumura et al. fails to show, teach, disclose or suggest a transducing head having isolated reader and writer structures where the writer is grounded to a substrate as required by amended independent claim 1. Thus, the rejection of amended independent claim 1 under §102(b) should be withdrawn. Notification to that effect is requested.

Claims 2, 9 and 10 depend from amended independent claim 1, and include all of the limitations of that base claim. Therefore, dependent claims 2, 9 and 10 are likewise allowable over the cited art, and the rejections under §102(b) should be withdrawn. Notification to that effect is requested.

Claim Rejections - 35 U.S.C. §103(a)

Claim 3 was rejected under 35 U.S.C. §103(a) as being obvious over Jurisch et al. (U.S. Pat. No. 4,972,286). Original dependent claim 3 has now been canceled. As discussed above, the limitations of original dependent claim 3 have been incorporated into amended independent claim 1. The rejection of claim 3 under §103 is now moot.

Claim Objections

Claims 4-6, 14 and 23 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form.

In view of the foregoing discussion, it is believed that amended independent claim 1, from which claims 4-6 depend, is now in allowable form over the prior art of record. Thus, the objection to dependent claims 4-6 should be withdrawn. Notification to that effect is requested.

Claims 11-13 and 17-22 were indicated to be allowable if rewritten or amended to overcome the rejection(s) under §112, ¶2. With the present Amendment, independent claims 11 and 17 have been amended to overcome the §112, ¶2 rejection as discussed above. Thus, the objections to amended independent claims 11 and 17 should be withdrawn. Furthermore, claims 12-14 depend from amended independent claim 11 and include all of the limitations of that base claim, and claims 18-23 depend from amended independent claim 17 and include all of the limitations of that base claim. As discussed above, amended independent claims 11 and 17 are now in condition for allowance. Therefore, dependent claims 12-14 and 18-23 are likewise in allowable form, and the objections to those claims should be withdrawn. Notification to that effect is requested.

CONCLUSION

In view of the foregoing, all of the pending claims are now in condition for allowance over the prior art of record. The Examiner is invited to contact the undersigned if a telephonic interview would in any way facilitate the prosecution of the present case. The Commissioner is authorized to charge any additional fees associated with this paper or credit any overpayment to Deposit Account No. 11-0982.

Respectfully submitted,
KINNEY & LANGE, P.A.

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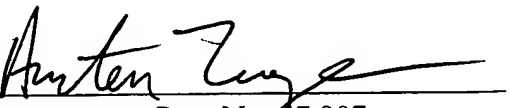
By: 

Austen Zuege, Reg. No. 57,907
THE KINNEY & LANGE BUILDING
312 South Third Street
Minneapolis, MN 55415-1002
Telephone: (612) 339-1863
Fax: (612) 339-6580